

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

The following responds in point order to the points raised in the Official Action:

Claims 1, 19 and 21-23, currently on file, stand rejected under 35 U.S.C. 103(a), as allegedly being obvious over United States Patent Application Publication No. 2002/0024973 to Tavana *et al.*, hereinafter referred to as Tavana, in view of United States Patent No. 6,163,805 to Silva *et al.*, hereinafter referred to as Silva.

Having specific regard to Claim 1, the rejection alleged that Tavana discloses the invention substantially as claimed, including a method, which can be implemented in hardware or software code, for dispatching bursts of packets onto a computer network. The rejection alleges that a number of the features of the method as defined in Claim 1, currently on file, are disclosed by Tavana. For example, the rejection asserts that a "network interface device" as disclosed by Tavana, shares functionality with an "I/O completion port" as defined in Claim 1 currently on file. The rejection stated that Tavana does not explicitly disclose the I/O completion port implemented in the operating system running on a computer. The rejection, however,

alleged that Silva discloses communications between test requesters, test dispatcher machine and test machines through network interfaces, wherein the test dispatcher machine receives generated test packets and forwards the generated test packets to a suitable test machine (abstract, column 13, lines 10-67; column 14, lines 1-28; column 8, lines 45-67). The rejection therefore alleged that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Silva's ideas of interoperating processes of test requesters, test dispatcher machine and test machines through network interfaces with Tavana's system in order to provide efficiency for a testing system.

Applicant respectfully disagrees with the rejection. Applicant asserts that the "network interface device" as disclosed by Tavana is defined in paragraph [0034], thereof, wherein Tavana defines that the system includes "a network media interface 102 (also referred to herein as a physical interface or PHY)". Applicant asserts that it would be clear to a worker skilled in the art having regard to the teaching of Tavana that the network interface device identified by the rejection is a hardware component to facilitate packet transfer. This hardware component as identified by the rejection is in direct contrast to the I/O completion port defined in Claim 1, currently on

file, which would be readily understood by a person of skill in the art as a software interface.

Furthermore, as stated by the rejection, Tavana does not disclose that the I/O completion port is implemented in the operating system running on a computer, as defined in Claim 1 currently on file. In light of this stated lack of teaching provided by Tavana, the rejection has relied upon Silva. Applicant asserts that nothing in Silva discloses or even suggests an I/O completion port, let alone that the I/O completion port is implemented in the operating system running on a computer, which the rejection has stated as being a deficiency of Tavana.

In further support of this stance, Applicant asserts that a person of skill in the art would not be motivated or even understand how to implement a "network interface device", which as defined by Tavana is a physical interface, in an operating system running a computer, which would be readily understood by a skilled worker is a software implementation. Applicant therefore asserts that the combination of Tavana and Silva would not lead a person of ordinary skill in the art to the feature of an "I/O completion port implemented in an operating system running on a computer", as explicitly defined in Claim 1, currently on file.

Applicant therefore strongly asserts that a person of ordinary skill in the art, having regard to Tavana and Silva, would not be led directly and without difficulty to the subject matter as defined in independent Claim 1, currently on file, and therefore asserts that Claim 1, currently on file, is inventive over Tavana in light of Silva.

Furthermore, independent Claim 23, currently on file, is directed towards a computer program product in line with the method as defined in Claim 1, currently on file. Therefore based on the above arguments in light of Claim 1, Claim 23 is equally inventive over Tavana in light of Silva.

In order to emphasize the patentable distinctions, Applicant has amended independent Claims 1 and 23 in order to more precisely define the scope of protection being sought. Applicant has amended these claims in order to define that measuring departure time of each of the test packets is performed using the I/O completion port and that measuring return time of each of the test packets is performed using the I/O completion port. Support for this amendment can be found throughout the application as originally filed, for example in paragraphs [0091] and [0099] of the application as published by the United States Patent and Trademark Office.

Applicant strongly asserts that nothing in Tavana or Silva teaches, suggests or even hints at the feature that measuring

departure time of each of the test packets is performed using the I/O completion port and that measuring return time of each of the test packets is also performed using the I/O completion port, as is expressly defined in independent Claims 1 and 23, submitted herewith. Applicant therefore asserts that independent Claims 1 and 23, submitted herewith, are inventive over Tavana in light of Silva. Furthermore, as Claims 19, 21 and 22 dependent directly or indirectly on Claim 1, these dependent claims are equally inventive over Tavana in view of Silva. Applicant therefore asserts that Claims 1, 19 and 21 to 23 submitted herewith, are inventive over Tavana in view of Silva, and therefore respectfully requests that the Examiner withdraw this 35 U.S.C. 103(a) objection.

The rejection stated that Claim 2, currently on file, is rejected under 35 U.S.C. 103(a), alleging that the subject matter of this claim is un-patentable over Tavana-Silva in view of United States Patent No. 5,812,528 to VanDervort, hereinafter referred to as VanDervort.

Based on the above arguments, Applicant asserts that independent Claim 1, on which Claim 2 depends, is inventive in light of Tavana-Silva. As VanDervort does not cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claim 2 currently on file is therefore inventive in light of Tavana-Silva in view of VanDervort. Applicant

therefore asserts that Claim 2 currently on file complies with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claims 3, 8 and 9, currently on file, are rejected under 35 U.S.C. 103(a), alleging that the subject matter of these claims is un-patentable over Tavana-Silva in view of United States Patent No. 5,477,531 to McKee *et al.*, hereinafter referred to as McKee.

Based on the above arguments, Applicant asserts that independent Claim 1, on which Claims 3, 8 and 9 directly or indirectly depend, are inventive in light of Tavana-Silva. As McKee does not cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claims 3, 8 and 9 currently on file are therefore inventive in light of Tavana-Silva in view of McKee. Applicant therefore asserts that Claims 3, 8 and 9 currently on file comply with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claims 4-7, currently on file, are rejected under 35 U.S.C. 103(a), alleging that the subject matter of these claims is un-patentable over Tavana-Silva-McKee in view of United States Patent No. 6,975,656 to Madhavapeddi *et al.*, hereinafter referred to as Madhavapeddi.

Based on the above arguments, Applicant asserts that independent Claim 1, on which Claims 4 to 7 indirectly depend,

is inventive in light of Tavana-Silva. As neither McKee nor Madhavapeddi cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claims 4 to 7 are therefore inventive in light of Tavana-Silva in view of McKee in further view of Madhavapeddi. Applicant therefore asserts that Claims 4-7 comply with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claim 11, currently on file, is rejected under 35 U.S.C. 103(a), alleging that the subject matter of this claim is un-patentable over Tavana-Silva-McKee in view of United States Patent No. 5,640,504 to Johnson, Jr., hereinafter referred to as Johnson.

Based on the above arguments, Applicant asserts that independent Claim 1 on which Claim 11 indirectly depends, is inventive in light of Tavana-Silva. As neither McKee nor Johnson cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claim 11 currently on file is therefore inventive in light of Tavana-Silva in view of McKee in further view of Johnson. Applicant therefore asserts that claim 11 currently on file complies with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claim 10, currently on file, is rejected under 35 U.S.C. 103(a), alleging that the subject matter of this claim is un-patentable over Tavana-Silva-McKee in

view of United States Patent No. 5,535,193 to Zhang *et al.*, hereinafter referred to as Zhang.

Based on the above arguments, Applicant asserts that independent Claim 1, on which Claim 10 depends, is inventive in light of Tavana-Silva. As neither McKee nor Zhang cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claim 10 is therefore inventive in light of Tavana-Silva in view McKee in further view of Zhang. Applicant therefore asserts that Claim 10 complies with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claim 17, currently on file, is rejected under 35 U.S.C. 103(a), alleging that the subject matter of this claim is un-patentable over Tavana-Silva-McKee in view of United States Patent Application Publication No. 2003/0084388 to Williamson Jr. *et al.*, hereinafter referred to as Williamson.

Based on the above arguments, Applicant asserts that independent Claim 1, on which Claim 17 indirectly depends, is inventive in light of Tavana-Silva. As neither McKee nor Williamson cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claim 17 is therefore inventive in light of Tavana-Silva in view of McKee in further view of Williamson. Applicant therefore asserts that Claim 17 complies

with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claims 12-16, currently on file, are rejected under 35 U.S.C. 103(a), alleging that the subject matter of these claims is un-patentable over Tavana-Silva-McKee-Johnson in view of United States Patent No. 5,699,539 to Garber *et al.*, hereinafter referred to as Garber.

Based on the above arguments, Applicant asserts that independent Claim 1 on which Claims 12-16 indirectly depend, is inventive in light of Tavana-Silva. As none of McKee, Johnson, or Garber cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claims 12 to 16 currently on file are therefore inventive in light of Tavana-Silva in view of McKee, in view of Johnson, in further view of Garber. Applicant therefore asserts that Claims 12-16 currently on file comply with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claims 18 and 24, currently on file, are rejected under 35 U.S.C. 103(a), alleging that the subject matter of these claims is un-patentable over Tavana-Silva in view of United States Patent No. 6,076,113 to Ramanathan *et al.*, hereinafter referred to as Ramanathan.

Based on the above arguments, Applicant asserts that independent Claims 1 and 23, on one of which Claims 18 and 24

directly depend, are inventive in light of Tavana-Silva. As Ramanathan does not cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claims 18 and 24 are therefore inventive in light of Tavana-Silva in view of Ramanathan. Applicant therefore asserts that Claims 18 and 24 comply with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claims 27 and 28, currently on file, are rejected under 35 U.S.C. 103(a), alleging that the subject matter of these claims is un-patentable over Tavana-Silva in view of Madhavapeddi.

Based on the above arguments, Applicant asserts that independent Claims 1 and 23, on one of which Claims 27 and 28 directly depend, are inventive in light of Tavana-Silva. As Madhavapeddi does not cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claims 27 and 28 are therefore inventive in light of Tavana-Silva in view of Madhavapeddi. Applicant therefore asserts that Claims 27 and 28 comply with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that Claims 25 and 26 currently on file are rejected under 35 U.S.C. 103(a), alleging that the subject matter of these claims is un-patentable over Tavana, in view Silva in view of Clark and further in view of McKee.

Having specific regard to Claim 25, the rejection alleged that Tavana discloses the invention substantially as claimed, including an apparatus, which can be implemented in hardware or software code for dispatching bursts of packets onto a computer network. The rejection alleges that a number of the features of the apparatus as defined in Claim 25, currently on file, are disclosed by Tavana. For example, the rejection asserts that a "network interface device" as disclosed by Tavana, shares functionality with an "I/O completion port" as defined in Claim 25. The rejection stated that Tavana does not explicitly disclose the I/O completion port implemented in the operating system running on a computer. However, the rejection alleged that Silva discloses communications between test requesters, test dispatcher machine and test machines through network interfaces, wherein the test dispatcher machine receives generated test packets and forwards the generated test packets to a suitable test machine (abstract, column 13, lines 10-67; column 14, lines 1-28; column 8, lines 45-67). The rejection further stated that Tavana-Silva does not explicitly disclose a computer processor or a program memory accessible to the processor. The rejection alleged that Clark discloses a packet generating Ethernet testing device comprising a microprocessor which is equivalent to a computer processor, a packet memory for storing the generated test packets and the interacting between

the processor and the packet memory. Furthermore, the rejection stated that Tavana-Silva-Clark does not explicitly disclose a sequencer. The rejection alleged that McKee discloses a test sequence program which is equivalent to a test packet sequencer software. The rejection therefore alleged that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate McKee's ideas of using test sequence program to control transmission test packets and Clark's processor and memory with Tavana-Silva's system in order to provide an efficient packet-based testing system.

The Applicant respectfully disagrees with the rejection and based on the argument presented in regard to Claim 1, Applicant asserts that a person of skill in the art having regard to Tavana and Silva, even with general knowledge in the art, would not be motivated or even understand how to implement Tavana's "network interface device", which is a physical interface, in an operating system running on a computer, which would be readily understood by a skilled person, is a software implementation. Applicant therefore asserts that the combination of Tavana and Silva would not lead a person of ordinary skill in the art to the feature of an "I/O completion port implemented in an operating system running on a computer", as explicitly defined in Claim 25, currently on file.

Furthermore, Applicant asserts that nothing in Clark or McKee teaches or suggests "the I/O completion port implemented in the operating system running on the processor", as is expressly defined in Claim 25, currently on file. Applicant therefore strongly asserts that a person of ordinary skill in the art, having regard to Tavana, Silva, Clark and McKee would not be led directly and without difficulty to the subject matter as defined in independent Claim 25, currently on file. Applicant therefore asserts that Claim 25, currently on file, is inventive over Tavana in view of Silva, in view of Clark in further view of McKee.

Applicant has however, amended independent Claim 25, currently on file, in order to more precisely define the scope of protection being sought. Applicant has amended this claim in order to define the processor is caused to measure departure time of each of the test packets using the I/O completion port and to measure return time of each of the test packets using the I/O completion port. Support for this amendment can be found throughout the application as originally filed, for example in paragraphs [0091] and [0099] of the application as published by the United States Patent and Trademark Office.

Applicant strongly asserts that nothing in any of Tavana, Silva, Clark, or McKee teaches, suggests or even hints at the features wherein the processor is caused to measure departure

time of each of the test packets using the I/O completion port and to measure return time of each of the test packets using the I/O completion port, as is expressly defined in independent Claim 25, submitted herewith. Applicant therefore asserts that independent Claim 25, submitted herewith, is inventive over Tavana in view of Silva, in view of Clark in further view of McKee. Furthermore, as Claim 26 depends directly on Claim 25, this dependent claim is equally inventive over Tavana in view of Silva, in view of Clark in further view of McKee. Applicant therefore asserts that Claims 25 and 26 submitted herewith are inventive over Tavana in view of Silva, in view of Clark in further view of McKee and therefore respectfully requests that the Examiner withdraw this 35 U.S.C. 103(a) objection.

The rejection stated that Claim 29, currently on file, is rejected under 35 U.S.C. 103(a), alleging that the subject matter of this claim is un-patentable over Tavana-Silva-Clark-McKee in view of Madhavapeddi.

Based on the above arguments, Applicant asserts that independent Claim 25, on which Claim 29 directly depends, is inventive in light of Tavana-Silva-Clark-McKee. As Madhavapeddi does not cure the fundamental deficiencies identified in the combination of Tavana, Silva, Clark and McKee, Claim 29 is therefore inventive in light of Tavana-Silva-Clark-McKee in view of Madhavapeddi. Applicant therefore asserts that Claim 29

complies with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

The rejection stated that claim 20, currently on file, is rejected under 35 U.S.C. 103(a), alleging that the subject matter of this claim is un-patentable over Tavana-Silva-Ramanathan in view of United States Patent No. 6,016,308 to Crayford *et al.*, hereinafter referred to as Crayford.

Based on the above arguments, Applicant asserts that independent Claim 1, on which Claim 20 indirectly depends, is inventive in light of Tavana-Silva. As neither Ramanathan nor Crayford cure the fundamental deficiencies identified in the combination of Tavana and Silva, Claim 20 currently on file is therefore inventive in light of Tavana-Silva in view of Ramanathan in further view of Crayford. The Applicant therefore asserts that Claim 20 currently on file complies with 35 U.S.C. 103(a) and respectfully requests this objection be withdrawn.

Applicant asks that all claims be allowed. Please apply the 2 month extension of time fee in the amount of \$450, and any credits or additional charges, to deposit account 06-1050.

Respectfully submitted,

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/Scott C Harris/

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